## WHAT IS CLAIMED IS:

- A vehicle passenger detecting apparatus in which a load sensor is provided 1. to detect a load acting on a vehicle seat on the basis of a distortion of a seat adjuster portion in a vehicle so that a load detection value taken when said vehicle seat is in an unoccupied state is stored as an unoccupied-seat reference value in advance and a state of a seated passenger on said vehicle seat is detected on the basis of a relative value between a load detection value from said load sensor and said unoccupied-seat reference value, said apparatus comprising reference correcting means for, in a case in which an ignition key switch and a buckle switch are in off conditions and a load detection value from said load sensor in said off conditions falls below an unoccupied-seat load value set in advance, correcting said unoccupied-seat reference value through the use of said load detection value from said load sensor.
  - 2. A vehicle passenger detecting apparatus comprising:
  - a seat track interposed between a floor of a vehicle and a seat cushion frame of said vehicle to make said seat cushion frame movable in longitudinal directions of said vehicle with respect to said floor; and a load sensor for detecting a load acting on said seat cushion frame on the basis of a displacement of said seat cushion frame with respect to an upper rail of said seat track, with a load detection value taken when a vehicle seat is in an unoccupied state being stored as an unoccupied-seat reference value in advance and a state of a seated passenger on said vehicle seat being detected on the basis of a relative value between a load detection value from said load sensor and said unoccupied-seat reference value, said apparatus including reference correcting means for, in a case in which an ignition key switch and a buckle switch are in off conditions and a load detection value from said load sensor in said off conditions falls below an unoccupied-seat load value set in advance, correcting said unoccupied-seat

reference value through the use of said load detection value from said load sensor.

- 1 3. The apparatus according to claim 1, wherein said unoccupied-seat
- 2 reference value is stored in a rewritable-type non-volatile memory.
- 1 4. The apparatus according to claim 2, wherein said unoccupied-seat
- 2 reference value is stored in a rewritable-type non-volatile memory.
- 1 5. The apparatus according to claim 1, wherein said reference correcting
- means does not correct said unoccupied-seat reference value in a case in which
- said load detection value from said load sensor when both said ignition key switch
- 4 and said buckle switch are in the off conditions exceeds a predetermined
- 5 threshold.
- 1 6. The apparatus according to claim 2, wherein said reference correcting
- means does not correct said unoccupied-seat reference value in a case in which
- said load detection value from said load sensor when both said ignition key switch
- 4 and said buckle switch are in the off conditions exceeds a predetermined
- 5 threshold.
- The apparatus according to claim 1, further comprising abnormality
- 2 history storing means for storing abnormality history information indicative of a
- detection of an abnormal value in a case in which said load detection value from
- said load sensor when both said ignition key switch and said buckle switch are in
- the off conditions exceeds a predetermined threshold so that said reference
- 6 correcting means does not correct said unoccupied-seat reference value when said
- 7 abnormality history information is stored in said abnormality history storing
- 8 means.

- 1 8. The apparatus according to claim 2, further comprising abnormality
- 2 history storing means for storing abnormality history information indicative of a
- detection of an abnormal value in a case in which said load detection value from
- 4 said load sensor when both said ignition key switch and said buckle switch are in
- the off conditions exceeds a predetermined threshold so that said reference
- 6 correcting means does not correct said unoccupied-seat reference value when said
- 7 abnormality history information is stored in said abnormality history storing
- 8 means.
- 1 9. The apparatus according to claim 1, wherein said reference correcting
- 2 means automatically corrects said unoccupied-seat reference value on a
- 3 predetermined cycle.
- 1 10. The apparatus according to claim 2, wherein said reference correcting
- 2 means automatically corrects said unoccupied-seat reference value on a
- 3 predetermined cycle.
- 1 11. The apparatus according to claim 9, wherein said reference correcting
- 2 means is operated in a low power consumption mode, which suppresses power
- 3 consumption, during a waiting period in the case of said unoccupied-seat
- 4 reference value being automatically corrected on said predetermined cycle.
- 1 12. The apparatus according to claim 10, wherein said reference correcting
- 2 means is operated in a low power consumption mode, which suppresses power
- 3 consumption, during a waiting period in the case of said unoccupied-seat
- 4 reference value being automatically corrected on said predetermined cycle.
- 1 13. The apparatus according to claim 11, wherein said reference correcting
- 2 means is operable through the use of a battery mounted in said vehicle.

- 1 14. The apparatus according to claim 12, wherein said reference correcting
- 2 means is operable through the use of a battery mounted in said vehicle.
- 1 15. The apparatus according to claim 1, wherein said load detection value
- from said load sensor is stored in time series, and said reference correcting means
- 3 corrects said unoccupied-seat reference value through the use of a plurality of load
- 4 detection values taken in time series.
- 1 16. The apparatus according to claim 2, wherein said load detection value
- from said load sensor is stored in time series, and said reference correcting means
- 3 corrects said unoccupied-seat reference value through the use of a plurality of load
- 4 detection values taken in time series.